

Application No.: 10/518,212  
Customer No. 24498

Docket No.: PU020291  
Art Unit: 2616

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Remarks/Arguments

Introduction

The Office Action mailed on February 13, 2008 has been reviewed and carefully considered.

Claims 1, 2, 4, 5, 6, 7, and 13 have been amended. Dependent claims 15-18 have been added, and no claims have been cancelled. Accordingly, claims 1-18 are now pending in this application, with claims 1, 7, and 13 being independent.

Reconsideration of the above-identified application, as herein amended and in view of the following remarks, is respectfully requested. It should be noted that the Applicants are not conceding in this application that the amended claims in their prior form are not patentable over the art cited by the Examiner, as the present claim amendments have been made to facilitate expeditious prosecution of the application. The Applicants respectfully reserve the right to pursue these and other claims in one or more continuation and/or divisional patent applications.

The amendments to claims 1, 2, 4, and 5 are for purposes of clarity.

Claim Rejections

Claims 1-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,680,939 to Lydon et al. (hereinafter 'Lydon') in view of U.S. Patent No. 6,885,635 to Haq et al. (hereinafter 'Haq'). Applicants respectfully disagree.

Lydon and Haq fail to disclose or suggest, at least, any one of the fourth, fifth and sixth links recited in claim 1, reproduced below (underlining added):

a first router component, said first router component including a first routing engine having input and output sides and a second routing engine having input and output sides;

a second router component, said second router component including a third routing engine having input and output sides and a fourth routing engine having input and output sides;

a third router component, said third router component including a fifth routing engine having input and output sides and a sixth routing engine having input and output sides;

a first link, said first link coupling said input side of said first routing engine to said input side of said third routing engine;

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a second link, said second link coupling said input side of said first routing engine to said input side of said fifth routing engine;  
a third link, said third link coupling said input side of said third routing engine to said input side of said fifth routing engine;  
a fourth link, said fourth link coupling said input side of said second routing engine to said input side of said fourth routing engine;  
a fifth link, said fifth link coupling said input side of said second routing engine to said input side of said sixth routing engine; and  
a sixth link, said sixth link coupling said input side of said fourth routing engine to said input side of said sixth routing engine;  
whereby said first, third and fifth routing engines and said second, fourth and sixth routing engines are arranged in respective fully connected topologies.

Rather, Lydon simply discloses a collection of routers (e.g., 50, 60, 70 and 80) that have links between them (see, e.g., Lydon, FIG. 4). As the Examiner has admitted, Lydon does not disclose providing an additional routing engine for each router (see, e.g., Office Action dated February 13, 2008, p. 3, paragraph 1). Furthermore, Lydon also does not disclose or remotely suggest providing additional links to connect additional routing engines of individual routers.

Moreover, Haq fails to cure the deficiencies of Lydon. Haq is directed to a router that includes an active routing engine and a backup routing engine (see, e.g., Haq, Abstract). The backup routing engine asserts itself as the active routing engine should the active routing engine fail (see, e.g., Haq, column 1, lines 55-58). However, Haq nowhere discloses or remotely suggests additional links connecting its backup routing engines to other backup routing engines.

Thus, the office action does not present a proper *prima facie* case because the recited fourth, fifth, and sixth links are not taught or suggested by either asserted reference.

Further, it should also be noted that it would not be obvious to one of ordinary skill in the art to modify Lydon's system to include Haq's backup routing engine and then to add to that modified system any of the fourth, fifth, and sixth links recited in claim 1. As discussed above, Haq discloses a backup routing engine that asserts itself as the active routing engine should the active routing engine fail. If the backup routing engine as taught by Haq were included in the Lydon router system, the backup routing engine would (at most) merely act as the active routing engine and use the router connection

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lines previously utilized by the active routing engine. In view of the references, one of ordinary skill in the art would not conceive of applying additional links connecting additional routing engines in a fully connected topology, as recited in claim 1. The only suggestion to add such additional links comes from our specification.

Accordingly, claim 1 is patentable over Lydon and/or Haq, taken singly or in combination, for at least the reasons discussed above. Furthermore, claims 2-6 are also patentable over the references due at least to their dependencies on claim 1.

Regarding claim 7, Lydon and Haq fail to disclose or suggest at least one or more redundant router matrices as recited in the claim:

A fully redundant linearly expandable broadcast router, comprising:  
at least three broadcast router components, each of said at least three broadcast router components having a first router matrix and a second router matrix that is redundant of the first router matrix . . . .

As discussed above, Lydon discloses employing multiple routers 50, 60, 70 and 80 with links between them. However, Lydon does not disclose or suggest that any of its routers include a redundant router matrix. For example, the 64 outputs served by Lydon's module 50A are not served by other modules in Lydon's system.

Similarly, Haq fails to disclose or suggest redundant routing matrices. While Haq discloses backup routing engines (201, 202) and processing components (205, 206) (see, e.g., Haq, Abstract; FIGS. 1-2), neither of these components alone or in combination constitute redundant routing matrices. As illustrated in FIG. 1, the routing engines disclosed in Haq do not include a matrix of routing paths, as packets are routed through a packet forwarding engine 106. Thus, Haq provides a backup routing engine but not a backup routing matrix, and Haq certainly does not provide not a redundant routing matrix. Further, Haq describes the processing components (205, 206) as performing high level functions such as determining correct destination ports for input packets and storing forwarding tables (see, e.g., Haq, column 3, lines 11-21). However, Haq does not teach or suggest that the processing components (205, 206) include matrices of routing paths. Thus, neither Lydon nor Haq disclose or render obvious a router component including at least one redundant routing matrix.

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Accordingly, claim 7 is patentable over Lydon and Haq, taken singly or in combination, for at least the reasons discussed above. Additionally, claims 8-12 are also patentable over the references due at least to their dependencies on claim 7.

Lydon and Haq also fail to render claim 13 unpatentable, as the references fail to disclose or render obvious several features of claim 13:

providing first, second, third, fourth, fifth and sixth router matrices, each having input and output sides, wherein said second, fourth and sixth router matrices are respectively redundant of said first, third and fifth router matrices;

As discussed above, Lydon and Haq, taken singly or in combination do not disclose or render obvious at least one router component including at least one redundant routing matrix. Thus, claim 13 is patentable over the references. Moreover, claim 14 is patentable over Lydon and Haq due at least to its dependency on claim 13.

Accordingly, it is respectfully submitted that all pending claims are allowable over the cited references.

#### Conclusion

In view of the foregoing, Applicant respectfully requests that the rejections of the claims set forth in the Office Action of February 13, 2008 be withdrawn, that pending claims 1-16 be allowed, and that the case proceed to early issuance of Letters Patent in due course.

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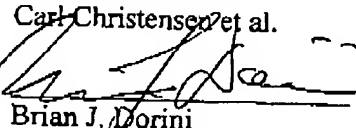
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It is believed that no additional fees or charges are currently due. However, in the event that any additional fees or charges are required at this time in connection with the application, they may be charged to applicant's representatives Deposit Account No. 07-0832.

Respectfully submitted,

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BJD/js

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